

### **REMARKS**

Upon entry of this amendment, claims 1-31 are all the claims pending in the application. Claims 30 and 31 are added as new claims. No new matter has been added.

Applicants note that a number of editorial amendments have been made to the specification and abstract for grammatical and general readability purposes. No new matter has been added.

#### **I. Objections to the Drawings**

The Examiner has objected to the drawings for the reasons set forth on page 2 of the Office Action. In particular, the Examiner asserts that Fig. 8 should be labeled as --Prior Art--. Applicants are submitting herewith a replacement sheet for Fig. 8 which includes the --Prior Art-- label. Accordingly, Applicants kindly request that the objection be reconsidered and withdrawn.

In addition, the Examiner indicates that the drawings do not include reference numeral "17". Applicants have amended the specification by replacing each instance of "17" with "17a to 17c". Accordingly, as reference numerals "17a", "17b", and "17c" are depicted in the drawings, Applicants kindly request that the objection be withdrawn.

#### **II. Objections to the Specification**

The Examiner has objected to the specification and to the title of the invention for the reasons set forth on pages 2-3 of the Office Action. Applicants have amended the specification and title in a manner to overcome these objections. The specification also includes editorial amendments that have been made for grammatical and general readability purposes. No new

matter has been added. Based on the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the objections to the specification.

### **III. Objection to the Claims**

The Examiner has objected to claims 4 and 6 due to minor informalities. Applicants have amended these claims in a manner to overcome the Examiner's objections. Accordingly, Applicants respectfully request that the objections to the claims be reconsidered and withdrawn.

### **IV. Claim Rejections under 35 U.S.C. § 102**

The Examiner has rejected claims 1, 2 and 11 under 35 U.S.C. § 102(e) as being anticipated by Wierenga (U.S. 6,552,985). Applicants respectfully traverse this rejection on the following basis.

Claim 1 recites the feature of an information recording medium having a recording member with a thickness that is larger than a wavelength of a light beam emitted by a light source. Applicants submit that Wierenga fails to disclose or suggest at least this feature of claim 1.

Wierenga discloses an information carrier 1 having a plurality of optically recordable layers 41-43 separated by space layers (see Fig. 1). The Examiner alleges that Wierenga discloses a recording member having a thickness larger than a wavelength of a light beam emitted by a light source. Applicants respectfully disagree.

\* In contrast to the position taken in the Office Action, Wierenga is completely silent as to the thickness of any of the recordable layers 41-43. Accordingly, as Wierenga makes no mention of the thickness of any of the recordable layers 41-43, it is clear that Wierenga does not disclose a

recording member having a thickness larger than a wavelength of a light beam emitted by a light source.

Indeed, Applicants note that it is general knowledge in the art that a thickness of a recordable layer is made smaller than a wavelength of the light beam when recording or reproducing information in order to provide recording pits that are formed easily and to reduce the manufacturing costs of the recordable layer. Accordingly, Applicants respectfully submit that the feature of a recording member having a thickness larger than a wavelength of the light beam is not even remotely suggested by Wierenga.

Further, Applicants note that it is not permissible to rely on dimensions shown in the drawings of Wierenga. In particular, as stated in MPEP section 2125, when a "reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value."

In view of the foregoing, Applicants submit that Wierenga fails to disclose or suggest the feature of an information recording medium having a recording member with a thickness that is larger than a wavelength of a light beam emitted by a light source. Accordingly, Applicants submit that claim 1 is patentable over the cited prior art, an indication of which is respectfully requested.

Claims 2 and 11 depend from claim 1 and are therefore considered patentable at least by virtue of their dependency.

In addition, claim 11 recites that the information recording medium comprises only a single recording member. Applicants respectfully submit that Wierenga fails to disclose or suggest such a feature.

The Examiner alleges that Wierenga discloses an information recording medium having only a single recording member 42 (see Office Action at page 4). Contrary to the assertion of the Examiner, however, as plainly shown in Fig. 1 of Wierenga, the recording medium 1 does not include only a single recording layer 42, but instead, includes multiple recording layers 41-43.

Thus, while Wierenga discloses a recording medium 1 having a recording member 42, Wierenga does not teach a recording medium that comprises only a single recording member, as recited in claim 11. Indeed, the Examiner appears to be completely ignoring the remaining recording layers (e.g., 41 and 43) that are plainly included in the recording medium 1 of Wierenga.

In view of the foregoing, Applicants respectfully submit that claim 11 is patentable over the cited prior art, an indication of which is respectfully requested.

#### **V. Claim Rejections under 35 U.S.C. § 103(a)**

A. The Examiner has rejected claims 9 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Wierenga in view of Ito et al. (U.S. 5,734,632). Claims 9 and 10 depend from claim 1. Applicants submit that Ito fails to cure the deficiency of Wierenga as discussed above regarding claim 1. Accordingly Applicants submit that claims 9 and 10 are patentable at least by virtue of their dependency.

B. The Examiner has rejected claims 17 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Wierenga in view of Ito. Applicants respectfully traverse this rejection on the following basis.

Claim 17 recites the feature an information recording medium having a recording member with a thickness that is larger than a wavelength of a light beam emitted by a light source. As discussed above regarding claim 1, Wierenga fails to disclose or suggest such a feature. Further, Applicants submit that Ito fails to cure this deficiency of Wierenga.

In view of the foregoing, Applicants submit that the cited prior art fails to teach, suggest, or otherwise render obvious all of the features of claim 17. Accordingly, Applicants submit that claim 17 is patentable over the cited prior art, an indication of which is respectfully requested.

In addition, claim 17 recites that an amount of change in the refractive index is less than or equal to 0.02. The Examiner recognizes that Wierenga fails to teach or suggest such a feature. In an attempt to cure this deficiency, the Examiner applies Ito and alleges that one of ordinary skill in the art would have been motivated to combine Ito with Wierenga in order to provide such a feature. Applicants respectfully disagree.

Ito discloses a recording medium with a refractive index that changes depending upon the presence or absence of a data pit 10 (see col. 9, lines 15-17). The effective reflectance  $R_2$  changes from 0.01 to 0.005 depending on the presence or absence of pits (see col. 9, lines 18-19).

The Examiner's alleged motivation for combining Ito with Wierenga is that it would have been obvious to use either a change in the refractive index taught by Ito, or a change in the transmission coefficient taught by Wierenga, because both are equivalent alternative types for recording information onto a recording medium. Applicants respectfully submit, however, that the Examiner's motivation for combining the two references is conclusory and wholly unsupported by the prior art.

It is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988, emphasis added). When an obviousness determination is based on two or more prior art references, there must be a showing of some "teaching, suggestion, or reason" to combine the references. *See Winner v. Wang*, 202 F.3d 1340, 1348 (Fed. Cir. 2000).

Evidence of a teaching, suggestion, or motivation to combine references may flow from the references themselves, the knowledge of one of ordinary skill in the art, or from the nature of the problem to be solved. See MPEP §2143.01. Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, must nevertheless be "clear and particular." *See Winner*, 202 F.3d at 1348 (emphasis added).

Here, the motivation proffered by the Examiner is neither "clear and particular" nor does it flow from the prior art. Indeed, the Examiner's only rationale for combining the two references is that it is known in the art that both changes in refractive index and changes in transmission coefficient can be used when recording information to a recording medium.

Applicants respectfully submit, however, that such a statement does not provide a reasonable explanation as to why a skilled artisan would have utilized a refractive index having an amount of change less than or equal to 0.02 on the recording apparatus of Wierenga. That is, while the Examiner has alleged that changes in refractive index and changes in transmission coefficient are known, there has been no showing as to why one would have provided Wierenga with a refractive index having an amount of change less than or equal to 0.02, as recited in claim 17.

Indeed, most if not all inventions arise from a combination of old elements. *See In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. *Id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *Id.*, emphasis added.

Thus, while the Examiner may have succeeded in locating certain features of the claimed invention in isolation, the Examiner has pointed to no teaching, suggestion or motivation which would have led one of ordinary skill in the art to provide Wierenga with a refractive index having an amount of change less than or equal to 0.02.

\* Based on the foregoing, Applicant respectfully submits that a prima facie case of obviousness has not been established and kindly requests that the Examiner reconsider and withdraw the rejection of claim 17.

Claim 24 depends from claim 17 and is therefore considered patentable at least by virtue of its dependency. In addition, claim 24 recites that the information recording medium comprises only a single recording member. For the same reasons as discussed above regarding claim 11, Applicants submit that Wierenga fails to teach such a feature.

That is, while Wierenga discloses a recording member 42, Wierenga does not teach a recording medium that comprises only a single recording member, as recited in claim 24. Further, Applicants submit that Ito fails to cure this deficiency of Wierenga. Accordingly, Applicants submit that claim 24 is patentable over the cited prior art, an indication of which is respectfully requested.

C. The Examiner has rejected claims 3 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Wierenga and Ito and further in view of Kasono (U.S. 6,292,442). Claim 3 depends from claim 1, and claim 18 depends from claim 17. Applicants submit that Kasono fails to cure the deficiencies of Wierenga and Ito as discussed above regarding claims 1 and 17. Accordingly Applicants submit that claims 3 and 18 are patentable at least by virtue of their dependency.

D. The Examiner has rejected claims 4-6, 16, 19-21 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Wierenga and Ito and further in view of Hino et al. (U.S. 6,178,151). Claims 4-6 and 16 depend from claim 1, and claims 19-21 and 29 depend from claim 17. Applicants submit that Hino fails to cure the deficiencies of Wierenga and Ito as discussed above regarding claims 1 and 17. Accordingly Applicants submit that claims 4-6, 16, 19-21 and 29 are patentable at least by virtue of their dependency.

E. The Examiner has rejected claims 7 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Wierenga and Ito and further in view of Suh (U.S. 4,793,696). Claim 7 depends from claim 1, and claim 22 depends from claim 17. Applicants submit that Suh fails to cure the deficiencies of Wierenga and Ito as discussed above regarding claims 1 and 17. Accordingly Applicants submit that claims 7 and 22 are patentable at least by virtue of their dependency.

F. The Examiner has rejected claims 8 and 23 under 35 U.S.C. § 103(a) as being unpatentable over Wierenga and Ito and further in view of McLeod et al. (U.S. 6,020,985).



Claim 8 depends from claim 1, and claim 23 depends from claim 17. Applicants submit that McLeod fails to cure the deficiencies of Wierenga and Ito as discussed above regarding claims 1 and 17. Accordingly Applicants submit that claims 8 and 23 are patentable at least by virtue of their dependency.

G. The Examiner has rejected claims 12, 13, 25 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Wierenga and Ito and further in view of Kikukawa et al. (U.S. 6,169,722). Claims 12 and 13 depend from claim 1, and claims 25 and 26 depend from claim 17. Applicants submit that Kikukawa fails to cure the deficiencies of Wierenga and Ito as discussed above regarding claims 1 and 17. Accordingly Applicants submit that claims 12,13, 25 and 26 are patentable at least by virtue of their dependency.

H. The Examiner has rejected claims 14 and 27 under 35 U.S.C. § 103(a) as being unpatentable over Wierenga and Ito and further in view of Durham (U.S. 5,532,998). Claim 14 depends from claim 1, and claim 27 depends from claim 17. Applicants submit that Durham fails to cure the deficiencies of Wierenga and Ito as discussed above regarding claims 1 and 17. Accordingly Applicants submit that claims 14 and 27 are patentable at least by virtue of their dependency.

I. The Examiner has rejected claims 15 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Wierenga and Ito and further in view of Ishii et al. (U.S. 4,125,860). Claim 15 depends from claim 1, and claim 28 depends from claim 17. Applicants submit that Ishii fails to cure the deficiencies of Wierenga and Ito as discussed above regarding claims 1 and 17.

Accordingly Applicants submit that claims 15 and 28 are patentable at least by virtue of their dependency.

#### **VI. New Claims**

Claims 30 and 31 are added as new claims. Claim 30 depends from claim 1, and claim 31 depends from claim 17. Accordingly, these claims are considered patentable at least by virtue of their dependency.

#### **VII. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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July 7, 2004